

Referências Bibliográficas

ANSYS CFX Release 13.0 User Manual, 2010.

BRADSHAW, P. 1967. The turbulence structure of equilibrium boundary layer. J. Fluid Mech. 27.

BRATU, CH., 1995. Two-phase pump transient behavior, SPE 30660, SPE Annual Technical Conference and Exhibition - Dallas.

BARUZZI, J.O.A.; CAETANO, E.F.; FAGUNDES NETTO, J.R., 2001. Production forecast for a subsea multiphase pumping system in the marlim field. SPE Annual Technical Conference and Exhibition, New Orleans.

CAETANO, E.F.; KUJAWSKI, J.M., 1999. Demonstration of a subsea multiphase flow pumping system. european congress on fluid machinery for the oil, Petrochemical and related Industries - ImechE, 7.

CAVALCANTI, R.S.; FARIAS NETO, S.R.; VILAR, E.O., 2004. Estudo da fluidodinâmica de bolhas de hidrogênio em um reator eletroquímico, Artigo submetido ao XV COBEQ – Congresso Brasileiro de Engenharia Química.

CHEN, J.; GUPTA, P.; DEGALEESAN, S.; AL-DAHMAN, M. H.; DUDUKOVIC, M. P.; TOSELAND, B. A., 1988. Gas holdup distributions in large-diameter bubble columns measured by computed tomography. Flow Measurement and Instrumentation, v.9, p.91–101.

CLIFT, R., GRACE, J.R., WEBER, M.E., 1978. Bubbles, drops, and particles. Montreal: Academic Press, Inc.

DAL PORTO, D.F. AND LARSON, L.A., 1997. Multiphase-pump field trials demonstrate practical applications for the technology. SPE Prod & Oper. SPE-36590-PA

DUKLER, A.E. AND HUBBARD, M.G., 1975. A model for gas-liquid slug flow in horizontal and near horizontal tubes. Ind. Eng. Chem., Fundam., Vol. 14, No. 4, 1975

FALCIMAIGNE, J. AND DECARRE, S. 2008. Multiphase production: pipeline transport, pumping and metering. Paris: IFP Publications, Editions Technip

FABRE, J., LINÉ, A., 1992. Modeling of two-phase slug flow. Annual Reviews Fluid Mech. Vol 24, pp 21-46.

FONSECA JUNIOR, R., 2009. Medição do campo de velocidade do líquido no escoamento bifásico intermitente em tubos horizontais e inclinados, Dissertação de Mestrado – Pontifícia Universidade Católica do Rio de Janeiro.

FORTUNA, A.O., 2000. Técnicas computacionais para dinâmica dos fluidos, Editora da Universidade de São Paulo, São Paulo.

FRANK, TH., ZWART, P.J., KREPPER, E., PRASSER, H.-M., LUCAS, D., 2008. Validation of CFD models for mono- and polydisperse air–water two-phase flows in pipes, Nuclear Engineering and Design 238 647–659, Elsevier.

GRIMSTAD, H.J., 2004. Subsea multiphase boosting—maturing technology applied for Santos Ltd's Mutineer and Exeter field. Paper SPE 88562 - SPE Asia Pacific Oil and Gas Conference and Exhibition, Perth, Australia, 18–20 October.

HINZE, J.O., 1975. Turbulence, McGraw-Hill, New York, USA, 1975.

HUA, G., FALCONE, G., TEODORIU, C., MORRISON, G.L., 2011. Comparison of multiphase pumping technologies for subsea and downhole applications, SPE 146784, SPE Annual Technical Conference and Exhibition - Denver, 30 Oct. – 2 Nov. 2011.

ISHII, M., HIBIKI, T., 2006. Thermo-fluid dynamics of two-phase flow. Springer-Verlag.

ISHII, M. AND ZUBER, N., 1979. Drag coefficient and relative velocity in bubbly, droplet or particulate flows, AIChE J., 25, 843-855.

LOPEZ DE BERTODANO, M., 1991. Turbulent bubbly flow in a triangular duct, Ph.D. Thesis, Rensselaer Polytechnic Institute, Troy New York, 1991.

KREPPER, E, 1999. CFD Simulations of a bubbly flow in a vertical pipe, Weiss, F.P.; Rindelhardt, U. (eds.); Forschungszentrum Rossendorf e.V. (FZR) (Germany). Inst. fuer Sicherheitsforschung; 161 p; ISSN 1437-322X; Feb 2000; p. 3-8; FZR-284

KUCHPIL, C., SOUZA, C.E.M., COELHO, E.J.J., SILVA, L.C.T., CERQUEIRA, M.B., CARBONE, L.C., 2013. Barracuda subsea helico-axial multiphase pump project. OTC 24217, Houston, Texas, 6-9 May, 2013.

LEAL, L.G., 1980. Particle motions in a viscous fluid. Annual Review of Fluid Mechanics, Palo Alto, v.12, p. 435-476, 1980.

LEGENDRE, D. AND MAGNAUDET, J., 1998. The lift force on a spherical bubble in a viscous linear shear flow, J. Fluid Mech., 368, pp. 81–126, 1998.

LO, S., 1996. Application of the MUSIG model to bubbly flows, AEAT-1096, AEATechnology.

LUO, S.M., E SVENDSEN, H., 1996. Theoretical model for drop and bubble breakup in turbulent dispersions, *AIChE Journal* 42, 1225 -1233, May 1996. MALISKA, C.R., 1995. Transferência de calor e mecânica dos fluidos computacional - Fundamentos e coordenadas generalizadas, LTC – Livros Técnicos e Científicos, Editora S.A., Rio de Janeiro (1995).

MENTER, F.R.; LANGTRY, R.B., LIKKI, S.R., SUZEN, Y.B., HUANG, P.G., VOLKER, S., 2006. A correlation-based transition model using local variables - Part I: Model formulation. *Journal of Turbomachinery-Asme*, 128 (3), 413-422.

MENTER, F.R., 1994. Two-equation eddy-viscosity turbulence models for engineering applications, *AIAA-Journal*, 32(8), pp. 1598 – 1605, 1994.

OFFSHORE Magazine Site, 2014. Deepwater Solutions & Records For Concept Selection - Offshore Magazine Poster: <http://www.offshore-mag.com/content/dam/offshore/print-articles/volume-74/05/1405offdeepwaterposter.pdf>

PATANKAR, S.V., 1980. Numerical heat transfer and fluid flow, Taylor & Francis.

PRINCE, M., BLANCH, H., 1990. Bubble coalescence and break-up in air-sparged bubble columns, *AIChE Journal* 36, 1485-1499, Oct., 1990

RHIE, C.M. AND CHOW, W.L., 1982. A numerical study of the turbulent flow past an isolated airfoil with trailing edge separation, *AIAA Paper* 82-0998.

RIERA-ORTIZ, J., ZEPPIERI, S., ROJAS-SOLORZANO, L., DERJANI-BAYEH, S., 2011, CFD Simulation of Air-Water in a Spouted Bed, *Chemical Engineering Transactions*, vol. 24, pp. 1481-1476, 2011.

RODRIGUES, R., SOARES, R., DE MATOS, J.S., PEREIRA, C.A.G. and RIBEIRO, G.S., 2005. A new approach for subsea boosting - pumping module on the seabed, *OTC 17398*, Houston, Texas, 2-5 May, 2005.

ROSA, E.S., 2012. Escoamento multifásico isotérmico: Modelos de multilíquidos e de mistura, Bookman – Porto Alegre, 2012

SANTOS, C. M., DIONISIO, R. P., CERQUEIRA, H. S., SOUSA-AGUIAR, E. F., MORI, M., D´AVILA, M. A., 2007. Three-dimensional gas-liquid CFD simulations in cylindrical bubble columns. *International Journal of Chemical Reactor Engineering*, v.5, A90, 2007

SHA, Z., LAARI, A., TURUNEN, I., 2006. Multi-phase-multi-size-group model for the inclusion of population balances into the CFD simulation of gas-liquid bubbly flows, *Chem. Eng. Technol.*, v.29, n.5, 2006.

TAITEL, Y., DUKLER, A.E. 1976. A model for predicting flow regime transitions in horizontal and near horizontal gas-liquid flow. *AIChE Journal*, Vol. 22, No.1, Janeiro, 1976.

TOMIYAMA, A., 1998. Struggle with computational bubble dynamics, ICMF'98, 3rd Int. Conf. Multiphase Flow, Lyon, France, pp. 1-18, Junho, 1998.

TOSTA DA SILVA, L.C., 2010. Simulação numérica de poço alojador de bombeio, Dissertação de Mestrado – Tecnologia de processos químicos e bioquímicos da Escola de Química / Universidade Federal do Rio de Janeiro, Rio de Janeiro.

ZIEGENHEIN, T., LUCAS, D., RZEHA, R., KREPPER, E., 2013. Closure relations for CFD simulations of bubble columns. ICMF'13, 8th International Conference on Multiphase Flow, Jeju, Korea, Maio 2013.